



**SPONSORED RESEARCH, INDUSTRIAL CONSULTANCY & CONTINUING
EDUCATION CELL
NATIONAL INSTITUTE OF TECHNOLOGY ROURKELA – 769 008, ODISHA**

Advertised Tender Enquiry

Department: Mechanical Engineering

Tender Notice No: - NITR/PW/ME/2018/64

Date: 29/09/2018

**To,
CPP Portal
(eProcurement)**

Important Dates

Event	Date	Time
Pre-bid Conference	NA	NA
Last Date of submission of Bid	29/10/2018	03:00 PM
Date of Opening of Technical Bid	30/10/2018	03:00 PM

Dear Sir,

We intend to purchase the commodities specified below and invite quotations in accordance with the terms and conditions detailed in the bid document. If you are interested, kindly send your offer with prices and complete terms within the time mentioned above.

For any clarification:

ATTENTION:

Principal Investigator: **Prof. Tarapada Roy**
Department of Mechanical Engineering
NATIONAL INSTITUTE OF TECHNOLOGY
ROURKELA – 769 008, ORISSA

Yours sincerely,

Name: Prof. Tarapada Roy
Principal Investigator:
Project Code: NITR/SR/17/ME/002

Encl:

- (1) Schedule of requirement, specifications, dates etc.
- (2) Bid document containing detail terms and conditions.

1. **Schedule of requirements**

Item No	DESCRIPTION	Quantity
1	ANSYS ACADEMIC RESEARCH (MECHANICAL & CFD, HFSS and EM)	01 TASK FOR EACH (i.e. MECHANICAL & CFD, AND HFSS & EM)
2	DESKTOP COMPUTER	04

2. **Specifications and allied Technical Details**

* Attach User list along with the quotation

3. **Format of Quotation** (tick appropriate box)

It is a two part bid with separate technical and price bid.

4. The bid should be submitted through <https://eprocure.gov.in/eprocure/app>

5. Quotations should be valid for a period of **90 days** from the closing date of the bid.

6. **Some important dates:**

i. Pre-bid Conference	Date: ___NA___	Time: ___NA___
ii. Last date for submission of bid:	Date: 29.10.2018	Time: 03:00 PM
iii. Date of Opening of Technical bid:	Date: 30. 10.2018	Time: 03:00 PM

7. **Warranty** of minimum **01** years must be provided for **ITEM NO. 1** and **warranty** of minimum **03** years for **ITEM No. 2** must be provided.

8. **GST:** GST should be charge according to applicable rates.

9. **Tender Cost and Bid Security (EMD):** Bid Security in shape of Bank Guarantee/DD (Demand Draft) for **INR 30,000/- (Rupees Thirty thousand only)** and Tender Cost (Non- refundable) in the form of DD for **INR 500/- (Rupees Five Hundred Only)** in favor of **Director, NIT Rourkela** Payable at Rourkela from any Scheduled Commercial Bank except Co-operative and Gramin bank. And Bank Guarantee/DD for the Bid-Security should remain valid for a period of **45 days** beyond the bid validity period from the date of opening of bids. Bid security of unsuccessful bidders should be return to them at the earliest and latest on or before the **30th days** after the award of the contract. **EMD (Earnest Money deposit)** and **Tender Cost** should reach physically through speed post/ register post/courier, containing in an envelope & superscripted with subject, tender reference number addressing to **Registrar, NIT Rourkela- 769008, Odisha;** Attention: HOD(ME) **on or before 30/10/2018 at 03:00 PM**

10. **Performance Security: Not applicable**

11. Please go through the enclosed "bid document" carefully for other bidding instructions.

12. Please send your quotations through <https://eprocure.gov.in/eprocure/app>
13. For technical details, you may contact

Prof. Tarapada Roy

Principal Investigator:

Project Code: NITR/SR/17/ME/002

Department of Mechanical Engineering,

National Institute of Technology,

Rourkela - 769 008

Phone: 0661 - 2462507

Fax: +91 - 661 - 2462501

E-mail: tarapada@nitrkl.ac.in/tarapadaroy@gmail.com

NB: ***Please furnish your Dealership Certificate (must) and Proprietary Nature Certificate (If applicable)***



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BID DOCUMENT

1. Instructions to the bidders

- 1.1 Bids are invited on behalf of the Director, National Institute of Technology (NIT), Rourkela – 769 008, Orissa, from the intending bidders for supply of the goods/stores/ equipment for the Institute as detailed in the enquiry letter.
- 1.2 The bidders should quote their offer/rates in **BOQ** in clear terms without ambiguity.
- 1.3 In case of any discrepancy between the rates in figures and that in words, the rate in words will be accepted as correct.
- 1.4 The last date for receipt of the bid is marked in the enquiry.
- 1.5 The bids should be uploaded in <https://eprocure.gov.in/eprocure/app> Please follow the guidelines of the site.
- 1.6 If a prospective bidder requires any clarification in regard to the bidding documents, he may make a request the concerned officer or faculty member at least 15 days before the deadline for receipt of bids.
- 1.7 Bids received after the deadline of receipt indicated in para 1.4 above, shall not be taken in to consideration.
- 1.8 Each bidder shall submit only one bid. A bidder, who submits more than one bid, shall be disqualified and considered non-responsive.
- 1.9 (In respect of high value plant, machinery etc. of a complex and technical nature). The bids may be submitted in two parts, viz., technical bid and financial bid.
- 1.10 The bidder has to sign in full at all pages of the scanned part of the bidding document. No over-writing in those pages is acceptable.
- 1.11 If any bidder does not fulfill technical specification, his/her eligibility will be cancelled even if his/her price got L1 status.

2. Conditions of the bid

- 2.1 The rates quoted should preferably be net, inclusive of packing, forwarding, freight, Insurance and all other incidental charges excluding taxes. In case these charges are quoted extra in addition to the quoted rates, the amount thereof or Ad Valorem rate must be specified. Packing, forwarding, freight, entry tax etc., when quotes separately are reimbursable at actual. If external agencies are employed, their receipts must be enclosed with the invoice.
- 2.2 Duties and Taxes are to be quoted separately. Ad Valorem rates thereof should be clearly indicated with reference to the relevant Acts and Rules.

It may be noted that the Institute is exempt from paying Excise Duty vide Government Notification No. 10/97 dated 01.03.1997 [Registration No.: TU/V/RG-CD (227)/2011, dated 10.10.2011. GST may be charged at applicable rates.

- 2.3 The goods are required to be delivered at the indenting Department of NIT, Rourkela, and must be reached within **60 days** from the date of placement of the supply of order under the risk and arrangement of the bidder and offers with delivery beyond the above period shall be treated as unresponsive. In case the delivery time is higher, the same must be mentioned clearly in the quotation.
- 2.4 The bid should remain valid for a period of **90 days** from the date of opening. In case your offer has a different validity period that should be clearly mentioned in the quotation.
- 2.5 Conditional discount, if any, offered by the bidder shall not be considered at the time of evaluation.
- 2.6 The goods offered should strictly conform to the specification and technical details mentioned in **Annexure-I**.
- 2.7 The Institute may like to conduct pre-dispatch inspection of goods, where applicable.
- 2.8 Period of guarantee/warranty, where applicable, should be specified in the bid.
- 2.9 If the successful bidder, on receipt of the supply order, fails to execute the order within the stipulated period, in full or part, it will be open to the Director, NIT, Rourkela to recover liquidated damage from the firm at the rate of 1 percent of the value of undelivered goods per month or part thereof, subject to a maximum of 5 percent of the value of undelivered goods. Alternatively, it will also be opened to the Director, to arrange procurement of the required goods from any other source at the risk and expenses of the bidder.
- 2.10 The successful bidder may be required to execute a contract, where applicable.
- 2.11 The bidder has to furnish up to date GST and Income Tax Clearance Certificate along with the bid.
- 2.12 Payment (100 percent) will be made by Account Payee Cheque /Bank Draft, within 30 days from the date of receipt of the goods in good condition or receipt of the bill, commissioning of the equipment, and after successful installation and demonstration where ever applicable, whichever is later/latest.
- 2.13 In case of Advance payment, the payment will be made on either in Foreign Demand Draft or Wire Transfer only. The proforma invoice copy need to be sent for advance payment.
- 2.14 In the event of any dispute arising out of the bid or from the resultant contract, the decision of the Director, NIT, Rourkela shall be final.
- 2.15 The bid document/resultant contract will be interpreted under Indian Laws

Technical Specifications for ANSYS ACADEMIC RESEARCH (MECHANICAL & CFD, HFSS and EM) (ITEM NO 1)

Item No	DESCRIPTION
1.	<p><u>ANSYS Mechanical & CFD (01 TASK EACH):</u></p> <p>Advanced problem size limited bundle of Multiphysics, Mechanical, CFD, Explicit simulation technology, includes BladeModeler, BladeGen, DesignModeler, DesignXplorer & MCAD Geometry Interfaces.</p> <p><u>Structural & Fluids Solver Capability</u></p> <ul style="list-style-type: none"> ➤ ANSYS AIM Pro ➤ ANSYS DesignSpace ➤ ANSYS Mechanical ➤ ANSYS Rigid Dynamics (Rigid Body Dynamics) ➤ ANSYS Emag (legacy, replaced by ANSYS Maxwell) ➤ ANSYS Multiphysics capability (includes LF Emag, HF Emag & FLOTRAN) ➤ ANSYS CFX Full Capability Solver ➤ ANSYS MFS Solver (Single code coupling) ➤ ANSYS MFX Solver (Fluid Structural Interaction) ➤ ANSYS Mechanical User Programmable Features (USER300 & related commands) ➤ ANSYS Fluent ➤ ANSYS Fluent NOx ➤ ANSYS Fluent Fiber Module ➤ ANSYS Fluent MHD Module ➤ ANSYS Fluent Population Balance Module ➤ ANSYS Polyflow (Full Capability) ➤ ANSYS Autodyn (2D & 3D) ➤ ANSYS Explicit STR (Autodyn Lagrange) ➤ ANSYS Icepak ➤ ANSYS Aqwa Suite <p><u>MCAD Geometry Interfaces</u></p> <ul style="list-style-type: none"> ➤ Neural File Import (IGES, STEP) ➤ ANSYS Geometry Interface for Parasolid ➤ ANSYS Geometry Interface for SAT ➤ ANSYS Geometry Interface for Solidworks ➤ ANSYS Geometry Interface for CATIA V5 Reader ➤ ANSYS Geometry Interface for CATIA V6 Reader ➤ ANSYS Geometry Interface for SolidEdge ➤ ANSYS Geometry Interface for Autodesk ➤ ANSYS Geometry Interface for NX ➤ ANSYS Geometry Interface for Creo Parametric ➤ ANSYS Geometry Interface for Creo Elements/Direct Modeling (One Space) ➤ ANSYS Geometry Interface for JT ➤ ANSYS Direct CAD interface for SDRC I-DEAS (Legacy - Use with ICEM CFD only) <p><u>Pre & Post Processing Features & Workbench Applications</u></p> <ul style="list-style-type: none"> ➤ ANSYS PrepPost (Includes ANSYS M-APDL Prep7, Post1) ➤ Workbench Schematic (Project Page) ➤ ANSYS DesignModeler ➤ ANSYS Workbench Meshing (Includes Extended Meshing) ➤ ANSYS DesignXplorer ➤ ANSYS Workbench Mechanical Application (Simulation) ➤ ANSYS Workbench Resources (Engineering Data) ➤ ANSYS Workbench Design Point Updates ➤ ANSYS Composite PrepPost ➤ ANSYS CFX-Pre ➤ ANSYS CFD-Post

- ANSYS Autodyn PrepPost
- ANSYS Fluent Prep & Post
- Polydata
- ANSYS ICEM CFD Meshing
- ANSYS LS-DYNA PrePost & Drop Test Module
- Parametric Variational Technology (VT) at the element level
- ANSYS Fatigue Module
- ANSYS FEModeler
- FEModeler - Mesh Morpher
- ANSYS TurboGrid
- ANSYS Blademodeler (Bladegen, BladeEditor & VISTA CPD, CCD, AFD & RTD)

PERFORMANCE COMPUTING

- **Built-in HPC (Minimum 16 cores per task)**
- Ability to extend built-in HPC (at extra cost)
- Mechanical & Fluids HPC - Shared Memory, Distributed Memory, Domain
- General Purpose GPU Support (ANSYS Mechanical & ANSYS Fluent solvers)
- ANSYS Remote Solver Manager (RSM)
- VT Accelerator & Frequency Sweep VT (Legacy- Replaced by Design Point)

ANSYS EM ((01 TASK):

Bundle of low frequency electromagnetics (Maxwell) and system level (Simplorer Advanced) simulation technology, also includes RMXprt, Pexprt & MCAD AnsoftLinks interfaces.

- ANSYS Q3D Extractor 3-D solver
- ANSYS Q3D RL (AC & DC) & CG modeler
- ANSYS Q3D Transmission line modeler
- ANSYS Maxwell Transient solvers
- ANSYS Maxwell AC Electromagnetic Solver
- ANSYS Maxwell Magnetostatic Solver
- ANSYS Maxwell Electric Field Solver
- ANSYS Maxwell Vector Hysteresis Modeling
- ANSYS Maxwell Dynamic Link with ANSYS Simplorer
- ANSYS RMXprt Brush & Electronic Commutator Machine
- ANSYS RMXprt Induction & Synchronous Machine
- ANSYS PExprt 2D Conduction, AC Conduction, Eddy Current & Eddy Axial Field
- ANSYS PExprt Circuit, Electrostatic, Motor & Magnetostatic Solvers
- ANSYS Simplorer Advanced
- ANSYS Simplorer VHDL-A/MS
- ANSYS Simplorer CoDesign Interface for MATLAB & Simulink
- ANSYS Simplorer CoDesign Interface for Mentor Graphics ModelSim
- ANSYS Simplorer C Programming Interface
- Import Ansoft Neutral Files from Ansoft Products
- Import from 3rd party EDA exported data
- ANSYS Alinks for MCAD (IGES, STEP, Pro/E)
- ANSYS Alinks for Parasolid
- ANSYS Alinks for CATIA V4 & V5
- ANSYS Alinks for NX
- ANSYS Alinks for Solidworks
- ANSYS Alinks for AutoDesk Inventor

ANSYS HFSS ((01 TASK)

Bundle of high frequency electromagnetics (HFSS), RF & Signal Integrity (Designer & SI Wave) simulation technology, also includes Q3D extractor, Optometric, EDA & MCAD AnsoftLinks interfaces).

ANSYS HFSS

- ANSYS HFSS Frequency Domain Solver
- ANSYS HFSS Time Transient Solver
- ANSYS HFSS Integral Equation Solver
- ANSYS HFSS Hybrid Solver
- ANSYS HFSS Physical Optics Solver

- ANSYS HFSS Fullwave Spice Export
- ANSYS Q3D Extractor 3-D solver
- ANSYS Q3D RL (AC & DC) & CG modeler
- ANSYS Q3D Transmission line modeler
- ANSYS Designer RF & SI - Integrated Schematic & Layout
- ANSYS Designer RF & SI - Linear/DC Analysis
- ANSYS Designer RF & SI - Field solver dynamic links
- ANSYS Designer RF & SI - Solver on demand
- ANSYS Designer RF - Planar EM
- ANSYS Designer RF - System Analysis
- ANSYS Designer RF - Smith/transmission line
- ANSYS Designer RF - Harmonic Balance, Oscillator & Envelope
- ANSYS Designer SI - Transient
- ANSYS Designer SI - QuickEye & VerifEye
- ANSYS Designer SI - IBIS-AMI
- ANSYS Designer SI - 2D Extractor
- ANSYS SIwave I2R DC solver
- ANSYS SIwave Plane Resonance Solver
- ANSYS SIwave Automated Capacitance decoupling analysis
- ANSYS SIwave AC Solver (SYZ)
- ANSYS SIwave Frequency Sweep Solver
- ANSYS SIwave Near & Far Field Solvers
- ANSYS SIwave Synopsis HSPICE integration
- ANSYS SIwave Flight Time Calculator (Signal Net Analyzer)
- ANSYS SIwave Circuit Analy.

Details of the deviation must be provided along with technical bid.

Technical Specifications for DESKTOP COMPUTER (ITEM NO 2)

ITEM NO.	Specification	Sub Specification	Value
2.	Processor	Processor Make	Intel
		Processor Generation	7 th
		Processor	Intel Core i7-7700K (4.2 GHz, 8 MB Cache, 4 Cores)
	Motherboard	Chipset	Intel Q270
		Expansion Slots (PCIe x 1) (Number)	2
		Expansion Slots (PCIe x 4) (Number)	1
		Expansion Slots (PCIe x 16) (Number)	2
	Graphics	Graphics Type	Dedicated/Discrete
		Graphic Memory	2GB
	Operating System	Operating System (Pre-Loaded)	Windows 10 Professional
	RAM	Type of RAM	DDR 4
		RAM Size (GB)	32
		RAM Expandability upto (GB)	64
		RAM Speed (MHz)	2400
	Storage	Hard Disk (GB)	2000
Cabinet	Cabinet	Tower	

	Cabinet Volume (Litres)	21.01(Range of the width for at least one cabinet with PCIe slot (express): 18-20 centimetre)
	Internal Bays	3
	External Bays (Number)	1
	DIMM Slots (Number)	4
Connectivity	Wireless	Wi-Fi 802.11ac + Bluetooth
	Network Connectivity	10/100/1000 on board Integrated Gigabit Port
Ports	USB Port 2.0 (Number)	4
	USB Port 3.0 (Number)	6
	Serial Port	False
	Parallel Port	False
	VGA	False
	HDMI	False
	Display Port	True
Monitor	Monitor Size (INCHES)	24
	Monitor Resolution (PIXELS)	1920x1080
	Monitor Certification	TCO 7.0
Power	Power Supply (Watt)	250
	Minimum Power Efficiency(%)	85
Certification	ROHS Compliance	Yes
	BEE / Energy Star for the given Model	True
Input Devices	Mouse	Optical
	Keyboard	Standard
Generic	Optical Drive	DVD R/W
	Internal Speaker	True
	On Site OEM warranty of whole system (in years)	3
Details of the deviation must be provided along with technical bid.		

Other Qualification Criteria:

1. Proprietary certificate of the OEM for the Product of **Item no. 1** must be provided along with technical bid(If applicable).
2. Copy of the authorization from the Manufacturing Company in case of Authorized Distributor /Dealer (if any) will be provided along with the technical bid.
3. Scanned copies of the technical brochure of the **item no. 1 and item no. 2 (Annexure-I)** given in the quotation must be included in the technical bid.
4. Web references of the **item no. 1 and item no. 2 (Annexure-I)** must be provided along with the technical bid.
5. Pointwise technical compliance along with any deviation of the mentioned specifications for item no. 1 and item no. 2 ((**Annexure-I**) must be indicated along with technical documents.
6. Make and model no. of **item no. 2** must be provided in the technical bid.
